

Kaiser Permanente

Telemedicine Innovation Profile

Educational Content from the TIMS Medical
"Telemedicine Reimagined" Series



Real-time, remote video & audio helps pathologists and clinicians located in different medical centers to jointly view and evaluate patient imaging; and collaborate for improved efficiency, cost savings, and better outcomes

About Kaiser Permanente (Permanente Medical Group):

With medical offices and other facilities in eight states and Washington, DC - the **Permanente Medical Group** is the nation's largest managed care group, with more than 300,000 employees serving 12.4 million members. While Kaiser Permanente delivers high-quality patient care through all its facilities nationwide, for more than 60 years, the **Southern California Permanente Group (SCPMG)** has stood out in the medical community for its commitment to ongoing learning, collaboration, and continuous improvement. Operating 14 medical centers and 198 medical offices from Bakersfield to Los Angeles and San Diego, **SCPMG** meets the healthcare needs more than 4.7 million **Kaiser Permanente (KP)** members in Southern California alone.

The Problem:

How to Overcome Time and Location Barriers, While Ensuring Access to Medical Expertise and Quality of Care

Supporting a very large and geographically disparate patient base across the Southern California region presents challenges: Providing quality healthcare across the massive Los Angeles and San Diego metro areas requires workforce alignment, personalized attention, and easy access to medical expertise and technology by patients in both urban and rural locations.

Dr. Majid Ghassemi, Director of Pathology at Kaiser Permanente's San Diego Medical Center gives his perspective: *"Patients brave enough to hit San Diego's freeways for a downtown medical visit know that travelling to an appropriate care center can take hours. From painful personal experience, I can tell you that patients aren't alone: traffic jams, long travel times and distances between facilities impact physicians and healthcare staff as well."*

For their essential role in analyzing tissues and fluids, performing and interpreting lab tests, **pathologists** are crucial members of a patient's treatment team. Dr. Ghassemi and other SCPMG pathologists work closely with surgeons, gastroenterologists, oncologists, urologists, neurologists, and other specialists throughout the region to effectively diagnose and characterize diseases and conditions.

Kaiser Permanente's Challenge?

How to better share patient images amongst pathologists and specialist clinicians (located in different facilities) for improved diagnostics, collaborative care decisions, efficiency, and patient outcomes.

The solution? TIMS Consultant

TIMS Consultant (from TIMS Medical, Inc. Chelmsford, MA) is an interactive video broadcast network for hospitals. It provides high resolution, live video streams from any medical modality across the hospital network, or anywhere remotely, and at ultra-low latency. Multi-party interactivity and collaboration is provided through integrated audio conferencing and live telestrations.

OVERVIEW

The Need

Provide time-critical patient imaging from procedure rooms and Operating Rooms to clinicians (to pathologists, surgeons, and other experts), and enlist their real-time input to deliver optimum care.

Sharing real-time and recorded video from the patient bedside over the Web with remotely located clinicians could improve the speed and quality of diagnosis.

The Solution

High-resolution live video streams from hospitals to other medical offices enable unprecedented tele-evaluation and remote collaboration between clinicians.

The Benefits

Seeing is believing.

Sharing live video from the patient's bedside with experts located elsewhere helps clinicians to better observe, diagnose, learn, collaborate, plan, and act on best course of treatment

Southern California Permanente Group Use of Live, Remote Medical Video and Audio Collaboration

Since a 2016 pilot, TIMS Consultant systems have been installed in multiple **SCPMG** facilities throughout the San Diego area. TIMS now provides KP a unique platform for inter-professional collaboration (from pathology to urology to surgery), on complex cases via real-time audio & video.

Clinical Applications Have Included:

- **Remote Live Image Viewing** (via network transfer of live and stored images for diagnosis, supervision, mentoring, and in-process procedures)
- **Teleconferencing** between pathologists in multiple locations.
- **Path-Clinical Correlation Conferencing** so pathologists conveniently present cases to a geo-dispersed group of clinicians (without having to leave their offices).
- **Next-Generation Tumor Boards** - Through telecollaboration, tumor board members no longer have to be based within a single hospital -- participants now simultaneously view patient imaging, and interactively “weigh in” no matter their location.
- **Real-time audio/video consultations** on therapeutic endoscopy between a remote gastroenterologist and multiple pathologists (via telecytology) at KP’s main Medical Center.
- **Telesurgery:** Beyond pathology, Dr. **Eugene Y. Rhee** (SCPMG’s Coordinating Chief of Urology) says TIMS gives him a “true telesurgical operating room with real-time ability to jointly perform any procedure remotely as a virtual assistant.”¹

Benefits of using TIMS Consultant by Kaiser Permanente:

- Superior image quality and interactivity to that from standard teleconferencing apps (e.g., Microsoft Teams, WebEx, Skype)
- Support for incoming video from all major imaging equipment (Cameras, NetCams, Microscopes, Image Splitters), as well as legacy systems (e.g., [Olympus cellSense](#) Imaging Software)
- Improved diagnosis through collaborative input.
- Cost savings – through eliminating the need to hire remote cytologists at regional endoscopy centers
- Eliminate need for secondary/tertiary procedures (biopsies etc.), when distributed team can make a collaborative diagnosis (e.g., benign vs cancerous tumor)

Kaiser Permanente: Longtime Telemedicine Innovator

An admirable example for regional medical management within a single payer system, **Kaiser Permanente** prides itself on how doctors and specialists located at separate medical centers work together on coordinated care, through collaborative decision making, and management of shared equipment, facilities, and laboratories. This model is shown through Kaiser’s adoption of live, remote medical video & audio collaboration with other telehealth technologies. In his introduction to a February 2021 *Forbes* article, Robert Pearl, MD (KP CEO from 1999-2017), wrote telemedicine “has the power to break down the barriers of time and distance. It can dramatically reduce healthcare costs and deliver top-notch medical expertise to people everywhere.”²

Kaiser Permanente:
Profile in Telemedicine Innovation



“As we see more cases than most medical centers, we’re presented with many challenges (e.g., logistics, workflow, efficiency, and effectiveness). Through video-based telecollaboration, our patients benefit from consensus diagnoses from a broader team of experts. This ensures optimum medical care is provided to our patients, and also makes our geographically dispersed team of providers more efficient.”

Dr. Majid Ghassemi, MD
Chief of Service, Pathologies
Medical Director of Laboratories
Kaiser Permanente, San Diego

Sources:

1 - *American Urological Association* – Matthew Gettman, Eugene Rhee, and Aaron Spitz. *Telemedicine in Urology*. 2016.
<https://www.auanet.org/guidelines/telemedicine-in-urology>

2 - *Forbes* – Robert Pearl.
Why Telemedicine Is Much More Than
A Digital Doctor’s Office. February 1, 2021.
bit.ly/2O2ww3v

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TIMS Medical - By Foresight Imaging

1 Executive Drive, Suite 202
Chelmsford, MA 01824 USA
W: www.tims.com P: (978) 458- 4624
E: info@tims.com Follow us on Twitter
at <https://twitter.com/TIMSMedical>

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